Are There Public Health Lessons That Can Be Used to Help Prevent Childhood Obesity?

In keeping with our increasing emphasis on thematic issues of pressing public health importance, I am pleased that this issue of Health Education Research is devoted to the topic of childhood obesity, and I sincerely thank Associate Editor Jenny O’Dea for spearheading this timely effort.

Increasing rates of childhood overweight and obesity have rapidly spread throughout the world, starting in developed countries, like the United States, and now beginning to be observed in the developing world as well. In fact, some developing countries are being confronted with the double burden of malnutrition or undernutrition in some segments of the population and obesity or overnutrition elsewhere. The obesity epidemic has taken center stage, usurping tobacco as the global cause celebre on the front page of the global media, and even sparking a lively debate in the United States whether and when obesity would surpass smoking as the leading cause of death.

Because the study of obesity as a public health problem appears destined to be intertwined with the study of tobacco, it is useful to consider two related issues. First, what can be learned from the efforts to reduce tobacco use and do these lessons have relevance for the prevention of childhood obesity? Second, but more broadly, how can we do more to increase the generalizability or external validity of our research efforts so as to know better if and when certain approaches can be extended to multiple public health problems?

There has been substantial scholarship on the applicability of potential public health lessons, particularly from tobacco control, to the prevention of childhood obesity. This research has focused on the major types of tobacco control interventions and commented on the potential relevance or generalizability to obesity prevention, with, in my opinion, no clear consensus as to effectiveness or feasibility. Most would agree that the hallmarks of contemporary tobacco control include intervention strategies such as normative change of the social acceptability of tobacco use, tax increases, marketing restrictions and countermarketing, prevention and cessation services, policy and legislative actions, litigation and most recently the first-of-its-kind global treaty. This heavy emphasis on policy interventions has not always been the case, with the early years of tobacco control focused on clinical and small-group interventions. These individually focused interventions were supplanted with a greater emphasis on population efforts, partly due to the increasing advocacy for social change driven by the non-smokers rights movement and partially driven by the increasing realization that large-scale change would only be achieved through efforts to change social norms and public policy. Within the research and academic communities, the late Joe Cullen of the US National Cancer Institute was a leader in recognizing the need to transition from a clinical to a public health approach to tobacco control.

Will we experience a similar conversion from clinical to population interventions for childhood obesity as experienced with tobacco control? Has it already occurred? Is it likely to be as successful? While these questions are impossible to answer today, there is evidence to suggest that some of the successful tobacco control interventions may have limited utility for obesity prevention, and that there is even more of an opportunity to promote an ecological approach to obesity prevention that blends individual, family, community, social and policy interventions together into a collective and comprehensive response to the problem of obesity. The reason I suggest that some of the tobacco control interventions may not be as generalizable to obesity prevention has to do with the nature of the health problem and increasing societal (or at least governmental) emphasis on personal responsibility. A large part of the success in tobacco control is attributable to the harm caused by secondhand smoke and the illegal and repugnant behavior of the tobacco industry. The very act of smoking causes disease and death in individuals who chose not to smoke and the tobacco industry itself has operated in a manner that totally disregards the public health in the pursuit of maximizing their...
profits. These factors, as well as others, have resulted in the rapid change in social norms and successful litigation, resulting in substantial financial settlements, damaging document disclosure and a continuing negative view of tobacco companies.

Can the same be said about the externalities of obesity and the behavior of the food industry? While there are clearly huge economic costs associated with obesity that are born by society, there is no clear obesity counterpart to the harm caused by secondhand smoke. Similarly, while some may argue that certain foods are addictive, it is unlikely that the same course of events will occur with food that occurred with nicotine manipulation. Thus, it is unlikely that there will be the same type of change in social norms against obese individuals or food companies as there was for smokers polluting the air or for tobacco companies. To date, there has been lukewarm enthusiasm for law suits against food companies or for efforts to differentially tax certain foods. There is, however, a stronger parallel between tobacco and food companies with respect to product marketing, and it is likely to imagine changes in the manner in which certain food products are marketed, particularly to young children.

The generalizability of lessons from tobacco control to the prevention of childhood obesity are clearly important, but perhaps even more important is the larger issue of generalizability and external validity in general and ways that journals like Health Education Research can help promote it. Earlier this year, under the leadership of Russ Glasgow and Larry Green, a number of public health journals agreed to collaborate in devoting more attention to issues of external validity and the role academic scholarship can play in this regard.

Various journal editors agreed upon four categories of external validity information that needed to be reported more often:

(i) recruitment and selection procedures, participation rate and representativeness at the levels of individuals, intervention staff and delivery settings;
(ii) level and consistency of implementation across program components, settings, staff and time;
(iii) impact on a variety of outcomes, especially those important to patients, clinicians and decision makers, including quality of life, program cost and adverse consequences;
(iv) if a follow-up report, attrition at all levels, long-term effects on outcomes and program institutionalization, modification or discontinuance.

Health Education Research is committed to increasing the external validity of the manuscripts we publish and the Editorial Board will discuss steps that we can take to do so. Clearly, the prevention of childhood obesity presents a clear and urgent example of the importance of external validity and our ability to extrapolate the effectiveness of public health intervention programs and how they may be applied to different populations and public health problems than those where they were shown to be effective. Rapid progress in preventing childhood obesity and in public health in general depends upon our ability to learn how to accurately generalize and improve the external validity of our research efforts.

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